



ZUMTOBEL



**LUXMATE
EMOTION**

Organisational skills for local lighting management systems: the EMOTION touch panel is control unit and operating panel in one, so that coordinating multiple lighting components into optimally attuned and dynamic lighting scenes is simple.





LUXMATE EMOTION

Unique in function and design

With the new generation of EMOTION touch panels, lighting control has moved onto a higher level: extra functions, more convenience, and a form of communication that is still easy to understand.

LUXMATE EMOTION was developed to create a straightforward means of operating a lighting management system, while also incorporating a lighting control design suitable for smaller architectural units such as shops or offices. By using clear, meaningful symbols and well-structured navigation, Matteo Thun has succeeded in making a wide range of options easily available, keeping operation simple despite the extra functions provided. The latest LUXMATE EMOTION enhancement is proof that the versatile lighting management system is incredibly user-friendly. Merely scratching the surface was not what Zumtobel had in mind here: going an important step further, the new design includes pre-installed comprehensive function packages so that precisely defined lighting scenes and sequences can simply be adopted as they are, or used as the inspiration behind individual lighting ideas.

DESIGN

EMOTION

MATTEO THUN



„When designing Emotion Touch, the aim was to open a door onto the undreamt-of potential of light, giving the user the chance to customise and harness this potential. A consistent, logical suite of user interfaces, from commissioning through to everyday use, was the basis of our creative ideas.“



The perfect combination

of automation and individuality

LUXMATE EMOTION

A central unit for operation and control

Processor, screen and keyboard – the EMOTION touch panel assumes all the roles of an intelligent lighting computer. Using a language that is easy to understand, it overcomes the many barriers created by other control systems. EMOTION invites the user to make active use of the light.

LUXMATE EMOTION has been designed to provide the appropriate lighting scene at the press of a button, whether in the office, retail area or fitness centre, for work, well-being and energy savings. The range of options that the EMOTION touch panel gives the user is as varied as the requirements of the different applications.

Every lighting scene and any combination of various luminaires and light sources can be configured quickly and precisely to suit specific visual tasks.



LUXMATE EMOTION creates order

As a control panel, EMOTION provides the room with intelligent lighting scenes at the press of a button. Transferring saved settings to other panels is equally easy. The metal surround conveniently hinges down to allow docking of the data stick supplied.

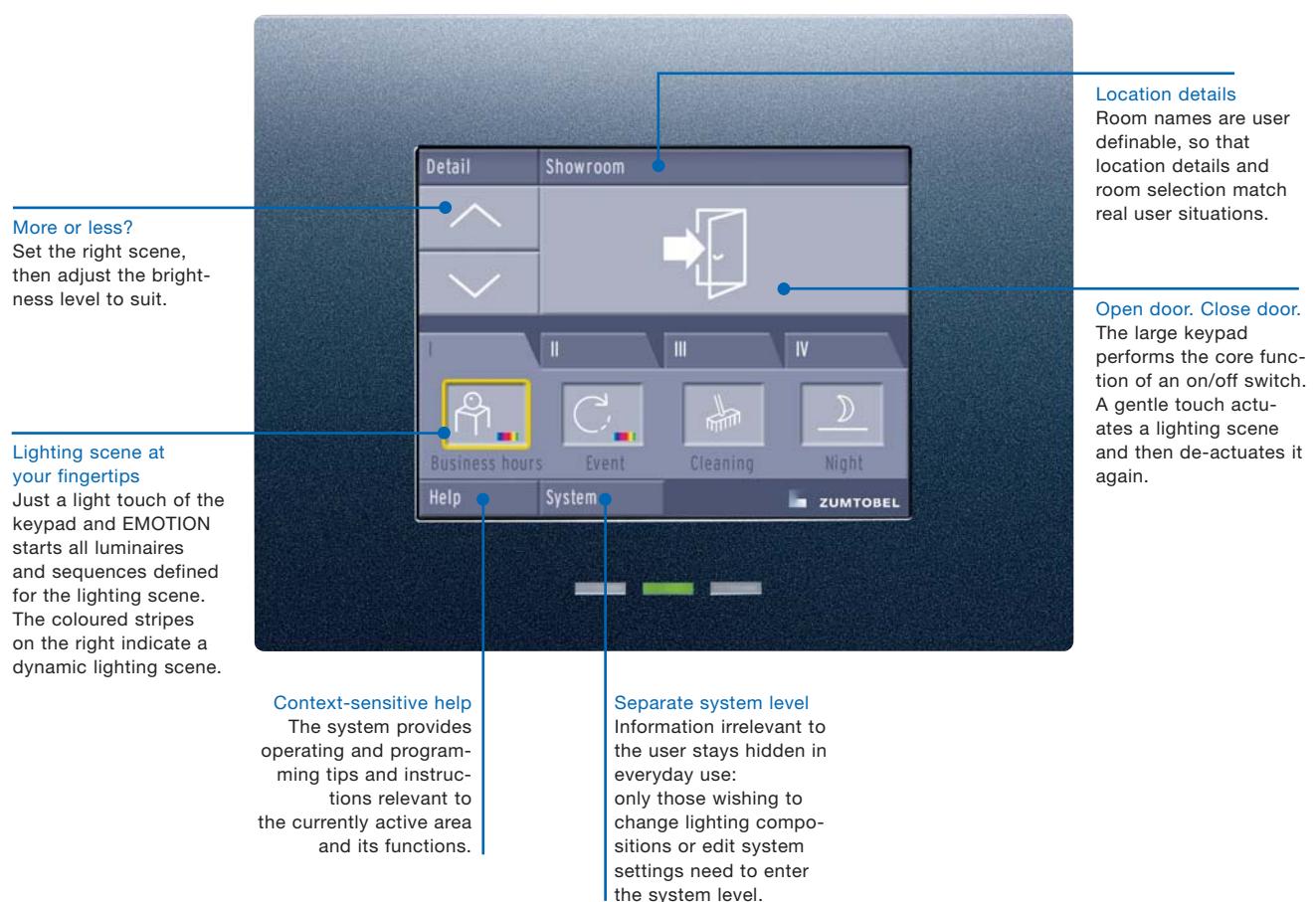
Learning by doing

Try it out to discover the possibilities

To explore the system, simply use it: an EMOTION touch panel can be operated without any training. Many of the functions are self-explanatory thanks to language-neutral symbols whose meaning is clear. The high-resolution display with its sharp, high-contrast graphics plus clear layout helps the user to navigate confidently from room to room or function to function.

Those keypads required for everyday functions are at the top control level for quick and easy operation.

Even at the system level, LUXMATE uses a language that is easy to understand. For example, luminaire groups are selected and configured via unambiguous symbols. Colour sequences and effects are integrated in preset lighting scenes.



Flexibility and dynamism

LUXMATE EMOTION in working environments

Motivating light

Office work makes high emotional demands of people. Factors such as creativity and decision-making ability are becoming increasingly important. Only when the light satisfies all the quality criteria of the visual task can people achieve their full potential. Feeling good makes this all the easier. With its user-friendly design, LUXMATE EMOTION smoothes the way for efficient use of intelligent control technology that combines convenience and emotionality.

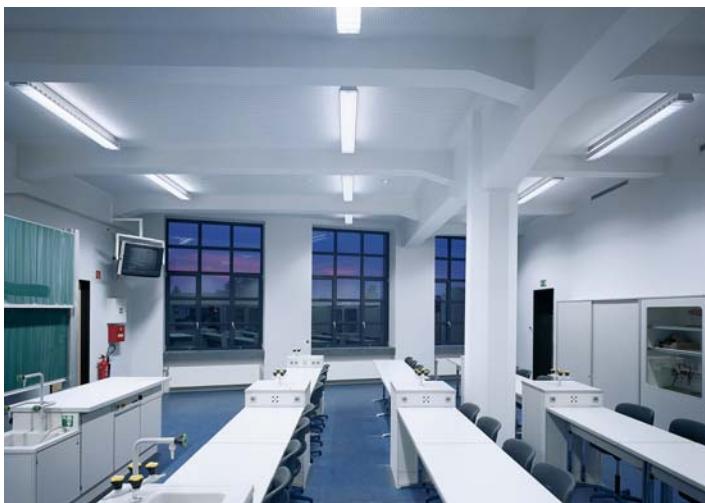
Dynamic light, with variable distribution of direct and indirect, diffuse and directional light, is pure motivation.

The attractive EMOTION touch panel is also able to illuminate walls with stimulatingly bright light colours if required. The optimum amount of daylight, integrated in dynamic teamwork with artificial light, enhances people's sense of well-being and reduces power consumption.



Offices

Working at the screen, communicating with colleagues, looking through documents: as visual tasks change, so does the lighting requirement. LUXMATE EMOTION adjusts the lighting scene dynamically.



Training and conference rooms

With a variety of media such as projectors and flipcharts used alongside personal presentations to impart knowledge, LUXMATE EMOTION is the convincing choice thanks to its easy one-touch scene-changing facility.



Laboratories, test and inspection facilities

Precise working comes more naturally when LUXMATE EMOTION uses a dynamically matched combination of daylight and artificial light to provide perfect illumination of areas that require perfect visual conditions while also ensuring a pleasantly bright environment.



Varied lighting scenes increase the allure of public areas, while coloured light is used as an eye-catcher. EMOTION adjusts the light output dynamically to the light level outside and selects the appropriate lighting scene, for instance to avoid the room looking like a dark cave on brilliantly sunny days.

Stage-setting and presentation

LUXMATE EMOTION in the world of retail



Light that sells

High sales and happy customers are the benchmarks of successful retailing, and this success often means catching the attention of passers-by. Dynamic variation of the light works particularly well here. Depending on the target group or brand message, this may be rhythmic lighting effects or gentle, barely noticeable colour changes. In both cases, the EMOTION touch panel perfectly coordinates all the lighting tools such as spots, LED luminaires or colour-filter spotlights.

Used with such sensational and emotional effect, light entices and guides the customer into and through the retail area.

Showing goods in the right light also increases their attractiveness. Once configured, the successful lighting scene is always standing ready: a quick touch of the EMOTION touch panel is enough; gone is the daily fiddling with numerous buttons and dimmers.



LUXMATE EMOTION is a powerful sales argument. Dynamic light turns shopping into an experience – whether in the car showroom, the exclusive boutique or the well-stocked supermarket.

A feeling of comfort and empathy

LUXMATE EMOTION in health environments

Light for health

In spas, wellness areas and health centres, where people are looking for relaxation and recuperation, the psychological effect of light is at least as important as its rational factors. Consistently mellow lighting scenes and the sensitive interaction of numerous lighting components make a valuable contribution to well-being and even recovery.

There are four more arguments for using EMOTION touch panels in health environments: intelligently used light encourages communication and is ideally suited as a means of differentiation, while user-friendly operation for patients and staff not only means greater convenience but also increases awareness of the use of energy.



Spas/wellness areas

Using a wavelike sequence of bright lighting points or light colours, LUXMATE EMOTION brings life to technology. In the STARFLEX starry sky, the colour and intensity of the light are modulated via an engine.



Medical areas

Relaxation and a sense of well-being happen under the command and coordination of LUXMATE EMOTION: by dynamically varying the ratio between direct and indirect light or by creating mellow tones, luminaires such as PURELINE, fitted with multiple light sources, create moving lighting scenes.



Surgery waiting rooms

Where dynamic light can shorten waiting times and relieve the room of its sterile and cold atmosphere, the first step to recovery has already been made. The calming interplay of colours is controlled and operated using an EMOTION touch panel, which dynamically dims the variously coloured lamps of the ACTIVE LIGHT WALLS.



Where people are escaping from stressful situations and seeking relaxation, LUXMATE EMOTION assumes responsibility for the convenience, dynamic performance and efficiency of the lighting.

Humanergy Balance

Lighting solutions for a balance between the environment, energy and the individual

As a single-source supplier – from luminaire to lighting control system – Zumtobel assumes responsibility for providing optimum and intelligent lighting solutions for all areas of application. In times of dwindling energy resources, the demand for maximum energy efficiency is closely tied into this.

With the „Humanergy Balance“ concept, Zumtobel is committed to balancing lighting quality with lighting efficiency. The concept of balance harmonises both the rational and the emotional aspects of a lighting system.

Lighting solutions in balance

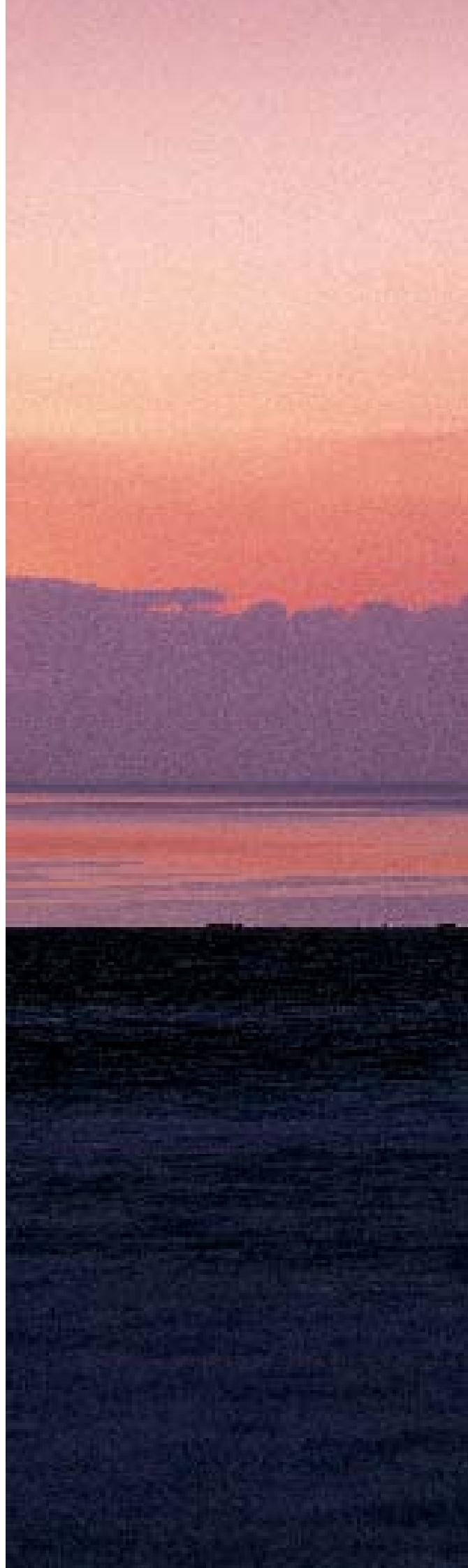
powered by
LUXMATE EMOTION

The fundamental role of light is to satisfy people's visual requirements. People need a minimum level of light in order to see. Where concentration, efficiency or creativity is expected, the demands made of lighting quality also increase. Light also has an emotional effect: brightness, colour, light distribution and dynamic behaviour influence one's mood. Even biological functions are affected by light. LUXMATE EMOTION has a special talent here. Thanks to simple operation and the wide spectrum of finely tuned lighting scenes available at your fingertips, it is far easier to employ the full range of positive lighting effects.

In addition to the lighting concept, the luminaire and its components, the lighting control system is the crucial factor for energy efficiency. Lighting controlled on the basis of daylight requires up to 60% less power than a comparable static installation. Timing data and presence detectors cut consumption still further. The EMOTION touch panel is able to fully satisfy the many requirements for energy-efficient use.

LUXMATE EMOTION provides its energy awareness in the form of defined lighting scenes and sequences:

- Active Light: changing the light the intelligent way
- Motivation Cycle: office lighting that is in tune with people's biological clock
- Energy efficient integration of daylight, presence detectors and timing data
- Preset lighting scenes at the press of a button







Daylight as role model

Because people are moulded by natural light

Man takes his bearings from natural light and its diurnal and seasonal changes. With Active Light, Zumtobel has developed a lighting concept that reproduces this interplay by controlling the variation in intensity, colour and direction of light. If required, this can lend unique ingenuity to light in order to create a new atmosphere inside a room that enhances its particular use. Personal intervention by the user should be possible, but not essential.

How does LUXMATE EMOTION implement the Active Light concept?

The EMOTION touch panel provides the organisation function for all types of luminaires involved in an Active Light project. How these interact and what lighting choreography is performed in what situation is specified in a „script“. A number of basic versions of Active Light scripts are stored on one EMOTION touch panel. These can be customized on the spot by the user to suit his requirements. It takes just a few moments and the press of a button for the EMOTION touch panel to provide dynamic lighting scenes.

The three dimensions of Active Light control

The interior light is controlled actively and selectively by Active Light. Any parameter can be changed at the EMOTION touch panel, and preset sequences run from here.



Intensity

Changing the illuminance level of individual luminaires or groups of luminaires.

The intensity is controlled using preset and customisable dimming curves.



Direction

Light changes its direction when different light sources having different radiation characteristics are used interchangeably.



Colour

Lamps with variable colour spectra and filter technologies make the coloured light dynamic.

Active Light

Dynamic lighting scenes in colour

Stage-show model

Let your imagination run free. The EMOTION touch panel helps you write the script.

LUXMATE EMOTION is the creative tool for dynamic lighting scenarios. Sequences defined on one touch panel can be transferred quickly to other panels using a data stick, allowing one script to be used in several branches without wasting time or losing quality. The floor calendar can be used to create a lighting scenario precisely tuned to the year, calendar week, day and hour.

LUXMATE EMOTION stores pre-configured sequences, scientifically specified for the office environment, which are ready to run at the press of a button. Customized sequences, for instance for night-time working, can always be defined.



Context-sensitive detailed information
Under the „Detail“ menu option, specific luminaire groups are selected via symbols for individual configuration.



Colour selection
Colour selection is easy with the range of colours available on the EMOTION touch panel. Corporate design colours can be modified using the touch panel colour selection facility.



Active Light script
The EMOTION touch panel provides graphic editing of the script, for finishing „touches“ in the truest sense of the word. Just a few touches are required to set any colour sequence and effect.



Motivation Cycle

Light synchronised to the human body clock

People are in close communication with their environment around the clock. Light not only helps us to see, but also controls numerous functions in the human body. It regulates the body's biological clock, or „circadian” rhythm, to use its

technical term, and many bodily functions are driven by it.

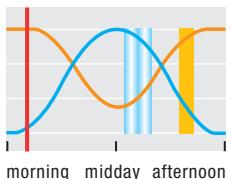
account of crucial quality criteria such as health, well-being and performance.

With „Motivation Cycle”, Zumtobel has developed a concept that by its biodynamic control of light sustains people's natural rhythm and takes

7.30 am

Emulating the passage of the sun

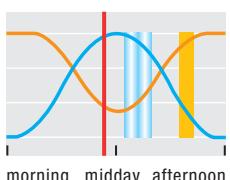
Large **direct components** in the morning correspond to a sunrise in nature.



11:30 am

Creating a link to daylight

Large neutral-white **indirect components** suggest the sun is overhead and provide a link to the outdoors.

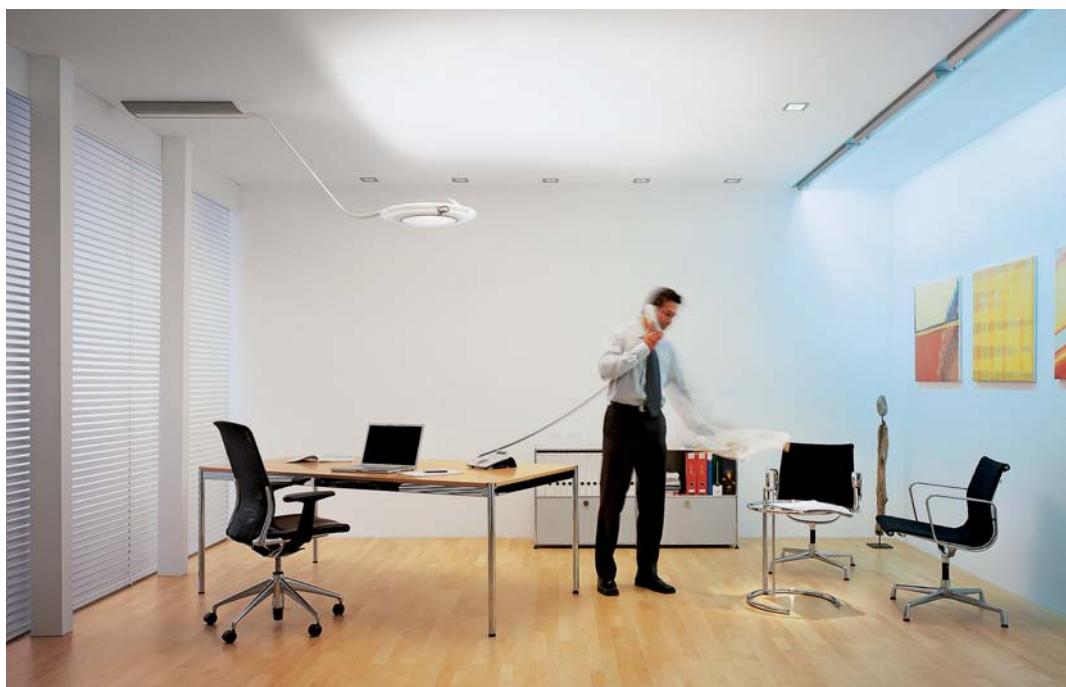


The biodynamic script

From the first ray of sun to sunset, natural sunlight is constantly on the move. A lighting solution using LUXMATE EMOTION to implement the Motivation Cycle lighting script

is just as dynamic. A yellow line on the touch panel defines the intensity of direct light, while a blue line represents indirect light. Timed lighting scenes are shown as vertical lines and areas. The current time is indicated by the red line.

The clarity with which the script graphic represents the lighting sequence is matched by the ease of customizing the latter. Simply link timing data to lighting scene, and let the EMOTION touch panel do the rest – like adapting the script graphic.

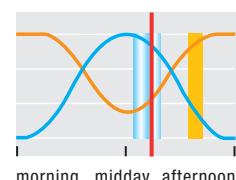


3:30 pm

Bridging productivity lows

Periods of increased lighting intensity raise attention levels.

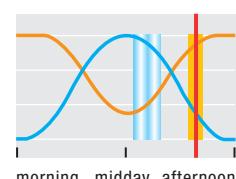
Cool-white wall illumination is the ideal add-on for revitalising.



7:00 pm

Imparting warmth and well-being

Warm-white **scalloping effects** on the wall impart a feeling of warmth, and correspond to the sun setting in the evening.



Motivation Cycle included

Scripts for different applications and expansion levels

Knowing how!

With the pre-defined biodynamic scripts for Motivation Cycles, Zumtobel is handing its customers a knowledge pack based on scientific experience. This saves the customer the trouble of studying the fundamental effects of light and personally designing a suitable lighting script.

Zumtobel has perfected every detail of the script, and makes it freely available to the customer in conjunction with every EMOTION touch panel. The script can then be modified to suit individual requirements and circumstances, with the customer able to opt for different lighting components and luminaires.

Scientific principles behind the Motivation Cycle on the EMOTION touch panel:

- consistent minimum illuminance level of 500 lux
- direct and indirect light components are essential
- wall illumination using wall-washers or spotlights for scalloping effects is recommended but not essential
- linking the Motivation Cycle to a lighting scene: when this scene is run, EMOTION starts the sequence at the correct point for the current time of day.

Direct/indirect light

Cellular office



Direct/indirect HELIODISK

Direct/indirect light

+

Revitalising light



Direct/indirect HELIODISK

Revitalising (wall illumination) TECTON

Direct/indirect light

+

Revitalising light

+

Well-being light



Direct/indirect HELIODISK

Revitalising (wall illumination) TECTON

Well-being (scalloping effect) 2LIGHT MINI

Meeting room



Direct/indirect MELLOW LIGHT IV

Open plan office



Direct/indirect FREELINE



Direct/indirect MELLOW LIGHT IV

Revitalising (wall illumination) TECTON



Direct/indirect FREELINE

Revitalising (wall illumination) TECTON



Direct/indirect MELLOW LIGHT IV

Revitalising (wall illumination) TECTON

Well-being (scalloping effect) 2LIGHT MINI



Direct/indirect FREELINE

Revitalising (wall illumination) TECTON

Well-being (scalloping effect) 2LIGHT MINI

Lighting scene at your fingertips

Precision lighting for demanding visual tasks

LUXMATE EMOTION ensures lighting quality and lighting efficiency

There is an optimum lighting scene for every activity. Once configured, LUXMATE EMOTION makes sure the scene is available and correct, while the user is free to make any changes or replace any components.



Desk-based work
Bright ambient lighting lets you read in comfort at the desk. The balanced ratio of horizontal to vertical illuminance ensures optimum contrast rendition.



Just press once – and the EMOTION touch panel immediately provides the lighting scene exactly, as required.



Screen-based work
Room luminaires with uniform light distribution and minimum glare and reflection are complemented by comfortable wall illumination.

LUXMATE EMOTION and MELLOW LIGHT IV

White is a light colour with many different hues. In the BALANCED COLOUR version, MELLOW LIGHT IV, a luminaire range by Zumtobel, provides the whole spectrum: from atmospheric warm white to stimulating cool white, with every possible shade in-between. LUXMATE EMOTION offers the intelligent control for these requirements.

You can find details in the latest MELLOW LIGHT product brochure.



Meetings
Warm light colours make an important contribution to a pleasant meeting atmosphere, while the eye is stimulated by illuminated vertical surfaces in the background.

Other room control units



DALI Circle control point

The control point, available in white and silver, contains several functions in the same overall size as a standard momentary-action switch. Printed symbols can be customized. Central On/Off button, three scene buttons and two dimmers for individual lighting scenes.



Switches and momentary-action switches

The simplest control units are often used in functionally equipped rooms for switching between two lighting scenes, for example in cellars, stairwells or toilet facilities.



Infrared remote control unit

Simple, convenient and always to hand: the ergonomic IT-Touch infrared remote control unit has fewer buttons than a mobile phone. All lighting components can be controlled from whatever position.

Area functions

The touch panel becomes the control centre for a multi-room installation

This is brilliant: by defining individual rooms as an „area“ on the EMOTION touch panel, the touch panel takes on the organization of several rooms at once. The facility to define lighting scenes that cover multiple rooms makes life easy for the user in smaller units such as shops or bank branches. It is possible to coordinate the lighting scenes between rooms, and define inter-room sequences and dependencies, with no restriction on actuating the lighting scene in each room.

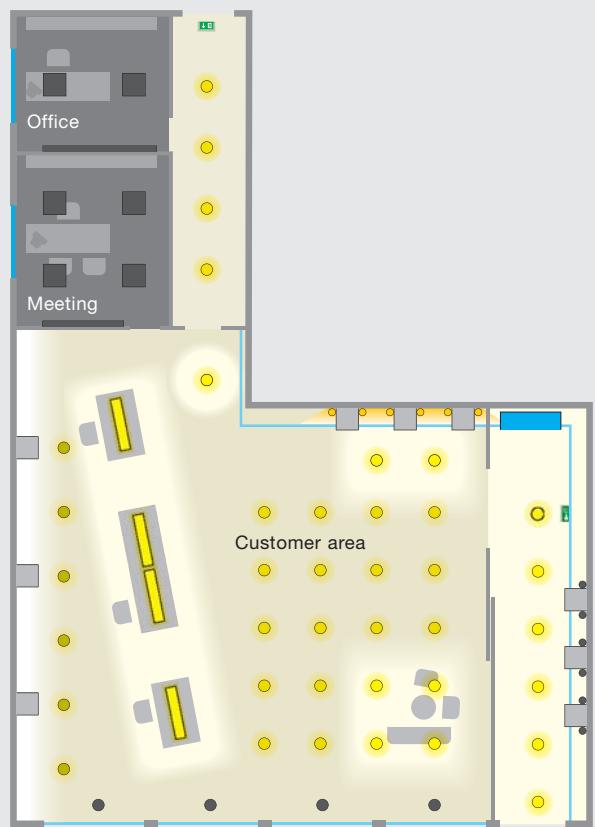
Example: bank branch
It used to be necessary to switch and dim all the luminaires separately in all the rooms, which was extremely time consuming. The correct lighting scene had to be found every day, while the settings would need repeated adjustment throughout the day.
Now LUXMATE EMOTION controls all the luminaires, in all rooms, and if required in teamwork with presence detectors and daylight sensors. In total, up to 16 lighting scenes can be defined.



Simply touch the required scene icon, and the correct lighting scene is immediately set in every room. The EMOTION touch panel replaces countless switches and dimmers, making the tedious search for the correct setting for each room redundant.

Situation 1

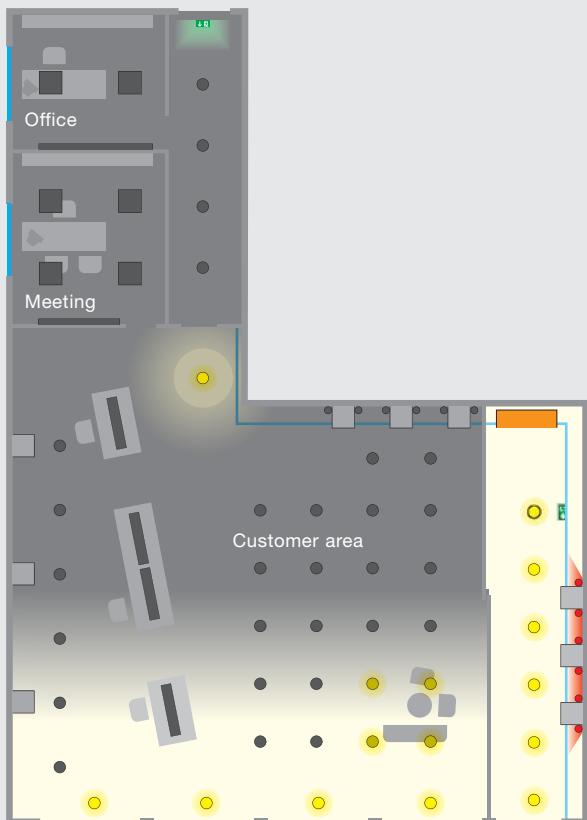
Business hours



7:30 am:

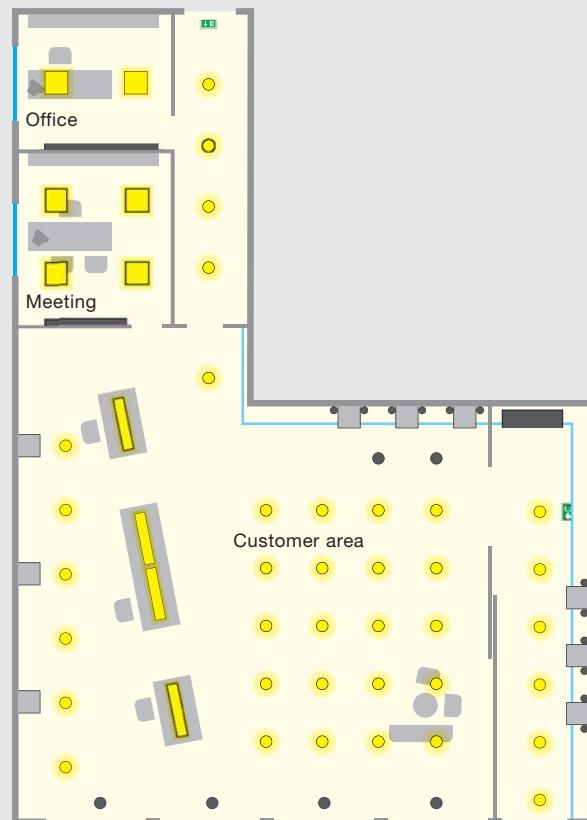
start of the working day. The branch manager enters the bank branch and announces his arrival at the touch panel. The light comes on in those rooms defined for immediate use. The lights in other rooms are only switched on when needed. The first press of the button also illuminates the customer areas at the specified lighting level, ideally focussing extra light deliberately on the consultation desks and self-service cash dispensers. Yet again the lighting can be personally adjusted at any time.

Situation 2
Night-time



 5:00 pm:
end of the working day.
When leaving the branch, all the luminaires are switched off with one press of the button. Only the glass frontage and the cash dispenser area accessible outside opening hours remain invitingly lit. This indicates the availability of the cash dispensers and gives the customer a sense of security. Integrating daylight sensors and presence detectors increases energy efficiency.

Situation 3
Cleaning



 Saturday 9.00 am:
weekly cleaning.
Just one touch of the cleaning symbol switches on all the lights in the branch – exactly what the cleaning staff need for their work. All rooms are lit brightly and uniformly, while wall illumination and Active Light Walls are not needed. These are disabled whenever the cleaning program is selected.

Automation options

For automatically more convenience and less power consumption

Daylight-based control using look-out sensor

Daylight increases the well-being and motivation of staff, but is not always available in sufficient quantity or quality. Which is why topping up with enough artificial light is necessary. In combination with dimmable luminaires, LUXMATE EMOTION provides the correct quantity of natural and artificial light. In addition, daylight-based lighting management has a positive effect on the energy balance. Independent studies show that up to 60 percent of energy is saved in lighting installations using an intelligent daylight-based control system.



Unlike look-down sensors, EMOTION EYE also works with indirect artificial light sources. The DALI-fitted sensor measures the incident daylight and uses these values to complement the daylight perfectly with artificial light.

Multifunctional infra-red technology for both occupancy and remote control

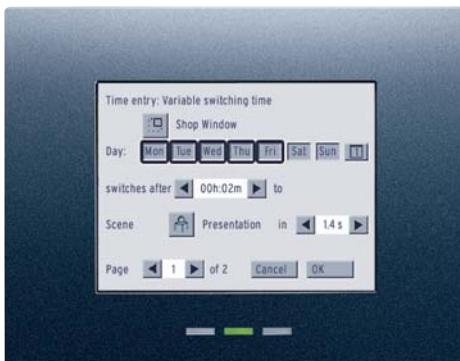
The individual becomes the measure of things when a sensor detects his presence, movements and requirements. EMOTION SENS is one of the first multifunctional infra-red sensors. It is a very observant look-out, and links its observations to those commands it has received via the remote control unit. Thus the user is perfectly looked after: the light is always where it is needed. This not only provides convenience but has the added bonus of saving energy.



EMOTION SENS uses the latest infrared technology so that a single device can detect when people are present while also receiving their instructions via remote control unit. To optimise its use in offices, the sensitivity of the multifunctional sensor is considerably higher than in standard presence detectors.

Intelligent time-based control

In order to combine the time factor with user friendliness, it is not enough just to know what time it is. LUXMATE EMOTION switches and dims the lighting at user-definable times, but also takes into account factors such as day of the week, outside light level, or whether or not people are in the room. Sequential functions can even be linked together logically.



Defining switching times

Fixed switching times are defined in order to start a lighting scene at the same time on a number of week days. Variable switching times, with user-definable delay and fade-in times, are specified if a particular lighting scene is meant to run after a certain event occurs.

„Staircase“ function

In order not to forget switching off the lights, they are automatically dimmed or switched off after a definable time period – although only at those times when few people are expected to be about, for example outside opening hours or at the weekend.

Twilight switch

If the outside light level falls below the user-definable minimum setting, LUXMATE EMOTION automatically runs the required lighting scene. This function can be defined for any time windows and days of the week, with the added option of specifying fixed switch-on times.

Design and installation

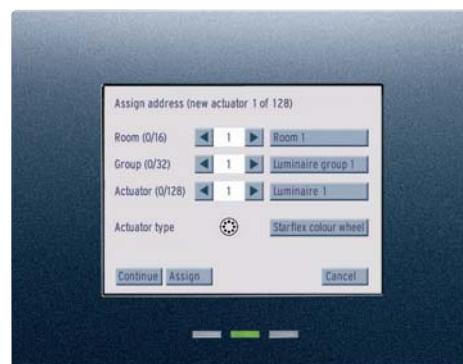
Easy, flexible and well structured

Perfect teamwork between luminaire and control system

As a single-source supplier, Zumtobel assumes responsibility for the complete lighting solution. All components, from ballast to lighting management system, are selected to provide the optimum combination. All system components speak a language that the user can understand easily. The major advantage for the installer, lighting designer and consumer is having a single contact person for all queries and services. Zumtobel System staff receive training in all the components of a lighting solution, and are therefore able to design, install and test systems in their entirety.

Menu-driven commissioning

No extra commissioning equipment is needed with LUXMATE EMOTION. So even the installer can enjoy convenient control using the EMOTION touch panel with its well laid-out user interface and self-explanatory symbols. It is therefore easy to take lighting control into one's own hands – literally.



Addressing luminaires
To simplify commissioning, the addresses (one per item of control gear) are assigned at the touch panel. Group and room allocation is equally simple, making the whole system extremely flexible.



Selecting lamp type and dimming response
EMOTION knows the optimum parameters for each different lamp. Specifying the correct lamp type and dimming response guarantees optimum control (very important for coloured luminaires).



Script configuration
The touch panel is an easy-to-use tool with a talent for organization – even when defining dynamic light changes. Luminaire, time and type of interaction are defined extremely quickly in „timelines“, a graphical configuration facility.



Defining daylight thresholds
Daylight-based control of lighting makes a major contribution to energy efficiency. Thresholds can be defined over a continuous range on the EMOTION touch panel.

Operating and programming instructions

See user manual for design, commissioning, programming and operation of the control system.



Lighting layout

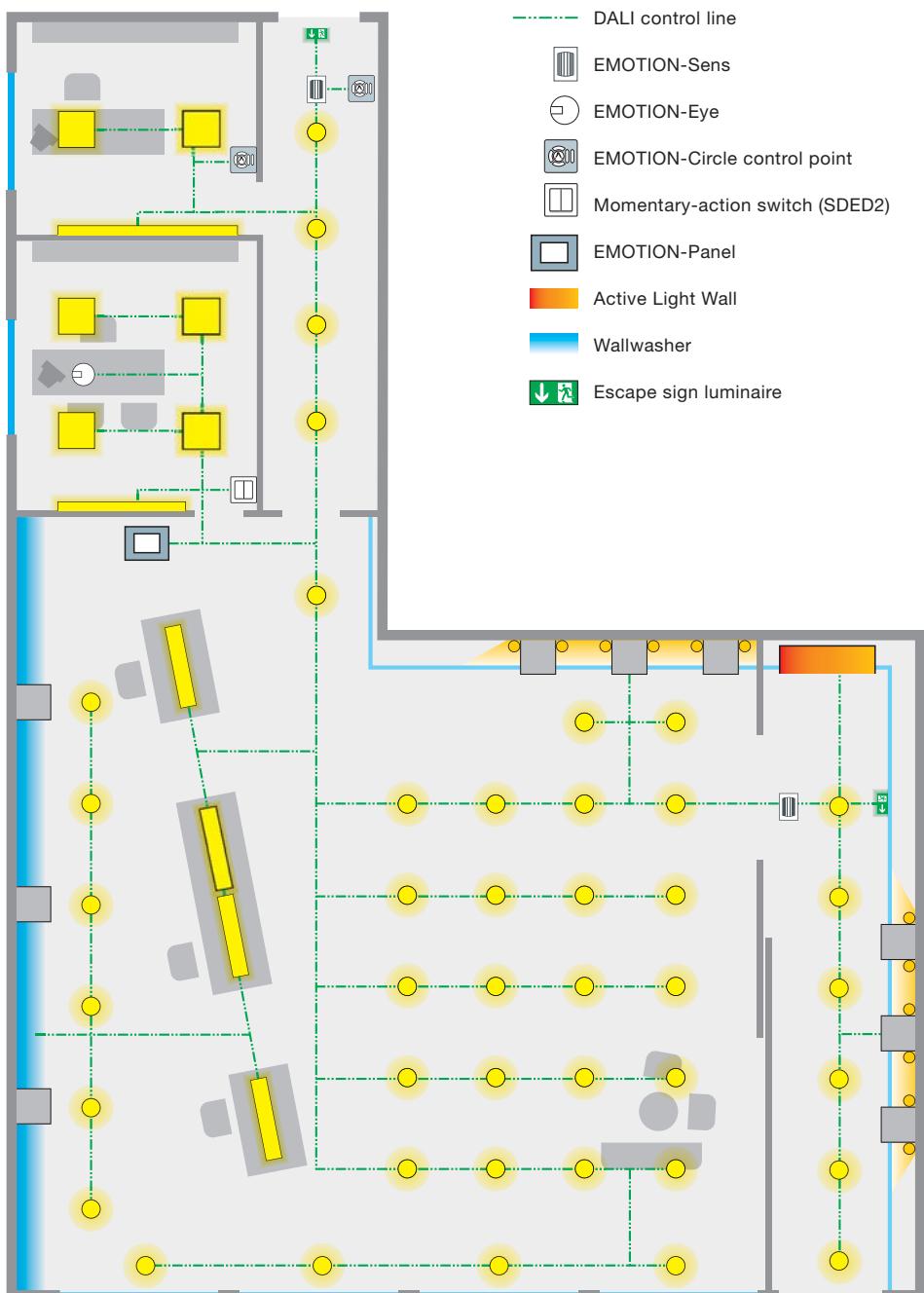
for multiple rooms

The diagram shows how easily an EMOTION system can be designed using a structured approach. Luminaires are grouped and addressed at a later stage in software, and the configuration can be changed and enlarged at any time as required.

Another plus point is the system's ability to integrate emergency lighting, and to detect and display a huge range of faults such as lamp failures.

Less is more

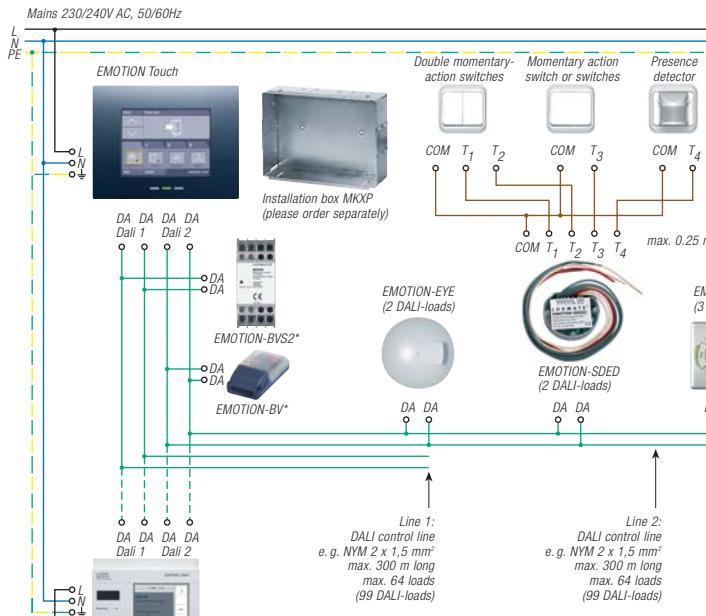
By using DALI technology, the system delivers more functions using fewer parts. Zero-power switching (=DALI) reduces cabling costs and the number of switches and contactors required, while simultaneously cutting the switching power. Another advantage of the DALI installation is that costly rewiring after regrouping luminaires or changing room partitioning is a thing of the past.





www.zumtobel.com/emotion

Operation/Power Supply

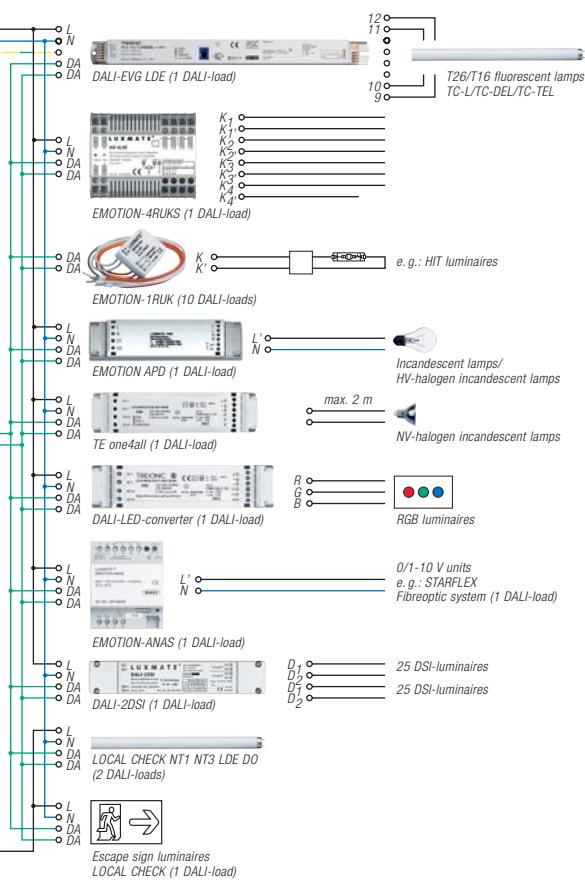


Line length of the DALI control line

Line cross-section of the DALI control line	Line length
2 x 0,50 mm ²	116 m
2 x 0,75 mm ²	174 m
2 x 1,00 mm ²	232 m
2 x 1,50 mm ²	300 m

* When combining the EMOTION-Touch and ONLITE SB 128 LOCAL CHECK Controller please don't use a bus power-supply (EMOTION-BV or EMOTION-BVS2)

Lighting/Emergency Lighting



DALI touch panel (C), installed in wall

- DALI control and addressing unit for up to 128 DALI electronic ballasts
- 2 DALI lines, each with 64 DALI electronic ballasts, one DALI power supply unit is required for each line
- Assignment of addresses in 16 rooms, 32 groups and 16 scenes
- Data backup by SD / MMC card (not included in supply)
- Image-driven commissioning manual and commissioning CD included
- Integrated time-based control
- Definition of shows with standard but also coloured luminaires, e.g. LED

Cat. no.

Control and commissioning panel

EMOTION-Touch C Colour display

L/W/H

Order no.

200/156/40 22 066 019

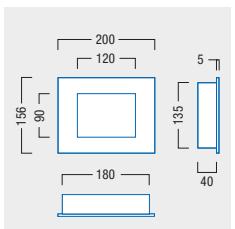
Service

LMS-ES1 Commissioning/addressing

22 129 548

LMS-ES2 Commissioning/addressing and shows

22 129 554

**DALI touch panel, installed in wall**

- The EMOTION touch panel provides the following additional functions
- Creation of areas (combining areas in order to switch them jointly)
- Upgrade function (new functions can be added via software update)
- Daylight-based control of luminaires
- Integration of infrared remote control unit
- Integration of presence detectors
- Control of Balanced Light luminaires
- Extended time-based control
- 12-hour daylight simulation (motivation cycle)

Cat. no.

Control and commissioning panel

EMOTION-Touch Colour display

Order no.

22 154 510

Service

LMS-ES1 Commissioning/addressing

22 129 548

LMS-ES2 Commissioning/addressing and shows

22 129 554

Installation box for touch panel

- Mounting box for no-tool installation of control panels
- Control panel can be folded out for data backup
- Friction areas for panel spring clip
- Must be connected to earth wire
- Galvanised sheet steel acc. to VDE0606 suitable for flush and cavity installation

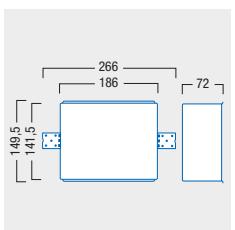
Cat. no.

MKXP Installation box for control panels

L/W/H

Order no.

186/150/72 22 154 482

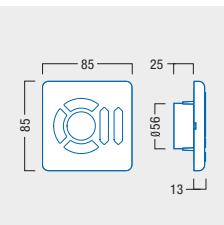


DALI Circle control point wall installation



- 3 lighting scenes
- Dimming of 2 rooms or luminaire groups
- Intuitive symbols for convenient operation
- Supply via DALI line (3 DALI loads)
- No DALI addresses occupied.
- Installed in single deep back box (not included in supply)
- EMOTION-CSx 1/2/3 printed with "1", "2", "3" and "Brightness" pictograms
- EMOTION-CSx CONFERENCE printed with "Conference", "Presentation", "Projector presentation", "Brightness" pictograms
- EMOTION-CSx EXHIBITION HALL printed with "Exhibition", "Presentation", "Vernissage", "Brightness" pictograms
- EMOTION-CSx RESTAURANT printed with "Day", "Twilight", "Night", "Brightness" pictograms
- EMOTION-CSx SHOWROOM printed with "Show", "Day", "Night", "Brightness" pictograms
- EMOTION-CSx WORKPLACE printed with "Screen", "Desk", "Visitor", "Brightness" pictograms
- Can be retrofitted, EMOTION-SDED2 replacement

Cat. no.	L/W/H	Order no.
EMOTION-CSS 1/2/3 silver (RAL 9007)	85/85/38	22 154 422
EMOTION-CSS CONFERENCE silver (RAL 9007)	85/85/38	22 154 432
EMOTION-CSS EXHIBITION HALL silver (RAL 9007)	85/85/38	22 154 423
EMOTION-CSS RESTAURANT silver (RAL 9007)	85/85/38	22 154 424
EMOTION-CSS SHOWROOM silver (RAL 9007)	85/85/38	22 154 425
EMOTION-CSS WORKPLACE silver (RAL 9007)	85/85/38	22 154 426
EMOTION-CSW 1/2/3 white (RAL 9003)	85/85/38	22 154 427
EMOTION-CSW CONFERENCE white (RAL 9003)	85/85/38	22 154 428
EMOTION-CSW EXHIBITION white (RAL 9003)	85/85/38	22 154 429
EMOTION-CSW RESTAURANT white (RAL 9003)	85/85/38	22 154 430
EMOTION-CSW SHOWROOM white (RAL 9003)	85/85/38	22 154 431
EMOTION-CSW WORKPLACE white (RAL 9003)	85/85/38	22 154 421

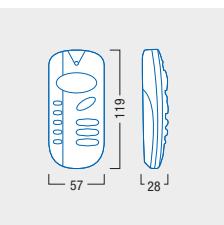


Infrared remote control



- For control of 5 independent groups
- 3 lighting scenes
- ON/OFF/dimming (1-100%)
- Only in conjunction with EMOTION-SENS
- Housing made of grey polycarbonate

Cat. no.	L/W/H	Order no.
IRTOUCH	119/57/28	22 154 450

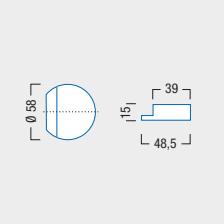


Switch-input (DALI) - standard switch/momentary action switch



- 4 separate single momentary-action switches, or 4 standard switches
- Function can be configured for each input
- 25 cm connecting cable
- 1 EMOTION-SDED2 occupies 2 DALI loads
- Installed in standard switch back box

Cat. no.	H/D	Order no.
EMOTION-SDED2	15/53	22 161 510



Analogue converter (DALI)

- Converts DALI to 0/1-10V
- Units controlled using 0/1-10V system
- Outputs: 0/1-10V control voltage, load contact (max. 5A~, internally linked with "L")
- Linear adjustment of dimming type
- Positioning of colour/dimming wheel module for fiberoptic systems (BCD switch addressed on projector: 650-653)
- 1 analog converter is assigned to 1 DALI load
- Installed on 35 mm rail

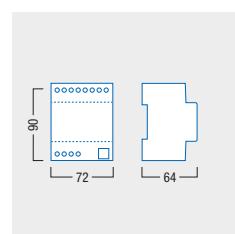
Cat. no.

EMOTION-ANAS Switch cabinet

L/W/H

DB Modules

Order no.



Examples of fiberoptic systems

**DSI converter (DALI)**

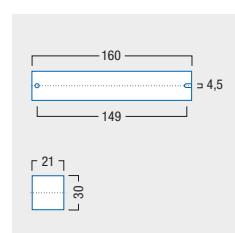
- Converts DALI to DSI
- For controlling 2 luminaire groups, each with a max. of 25 DSI-controllable control gear
- Dimming level parameters adjusted at EMOTION-TOUCH C
- 1 DALI-2DSI occupies 1 DALI load
- Installation: in luminaire/placed in the ceiling void

Cat. no.

DALI-2DSI 2 outputs

L/W/H

Order no.

**LED converter K210 (DALI)**

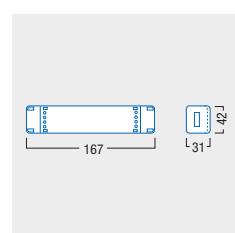
- Electronically dimmable LED converter
- 1 addressable PWM output channel, 25 W, 24 V
- 1 DALI LED converter is assigned to 1 DALI load
- Installation: dado trunking/placed in the ceiling void
- 1-15 LEDOS M/B/KAVA IP54 LED 24 V
- 1-8 LEDOS LED 24 V
- 1-20 KAVA LED 24 V

Cat. no.

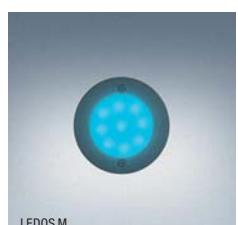
LED 0025 K210 24 V One4all

L/W/H

Order no.



Examples of available LED luminaires



LED converter K211 (DALI)

- Electronically dimmable LED converter
- 3 addressable output channels, 8 W each
- 1 DALI LED converter is assigned to 1 DALI load
- Installation: dado trunking/placed in the ceiling void
- 1-5 LEDOS M/B/KAVA IP54 LED 24V (24V per channel)
- 1-3 LEDOS LED 24V (24V per channel)
- 1-6 KAVA LED 24V (24V per channel)
- 1-6 LEDOS RG (2 channels required, used alternately)
- 1-6 LEDOS RGB L (3 channels required)
- PHAOS lighting tile available on request

Cat. no.

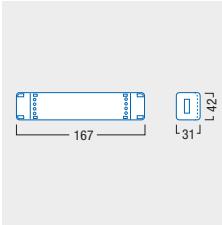
LED 0025 K211 24 V DALI

L/W/H

Order no.

167/42/31

86 455 066



Examples of available LED luminaires

**Phase dimmer (DALI)**

- Wattage: 40-500 VA
- Phase dimmer with DALI control
- Automatic phase/reverse phase control (load recognition)
- 1 dimmer occupies 1 DALI load
- Installation: in luminaire/placed in the ceiling void

Cat. no.

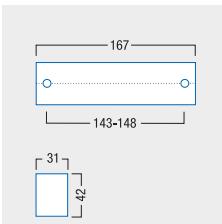
EMOTION-APDX 500VA

L/W/H

Order no.

167/42/31

22 154 290

**Phase dimmer (DALI)**

- Wattage: 40-1000VA
- Phase dimmer with DALI control
- Automatic phase/reverse phase control (load recognition)
- 1 dimmer occupies 1 DALI load
- Installed on 35 mm rail

Cat. no.

EMOTION-APDS 1000VA

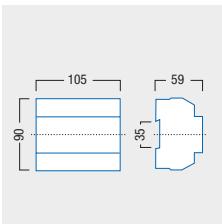
L/W/H

DB Modules

Order no.

105/90/59

22 154 291

**Phase dimmer (DALI/DSI/momentary-action switch)**

- Wattage: 40-5000 VA
- Phase dimmer with DALI control
- 1 dimmer occupies 1 DALI load
- With Preset function: stores and calls up any light level
- Installed in switch cabinet, with terminals facing downwards

Cat. no.

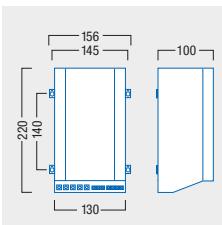
APDS-5000 Phase dimmer

L/W/H

Order no.

156/220/100

22 154 264



Relay output (DALI)



- Relay contact for connecting luminaires and electrical consumers
 - Current load 1 x 4 A ($\cos\phi = 1$)
 - Tungsten 500 W LV halogen 500 W Conventional ballast 250 W Electronic ballast 4 x 1/28 W, 1 x 2/58 W (30 A for max. 0.5s; e.g. 2 x 58 W)
 - 25 cm connecting cable
 - 1 relay occupies 10 DALI loads
 - Installation: dado trunking/placed in the ceiling void

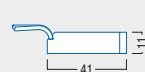
Cat. no.

EMOTION-1RUK 1 output

L/W/H

41/30/11

Order no.



Examples of luminaires with integrated DALI relay (on request)



PROTON TEC HIT



SPIRIT TEC HIT-DE



L-TOOLS lighting insert

Relay output (DALI)



- Control of luminaires and other loads for mains voltages up to a maximum of 230/240V
 - 4 relay outputs, each max. 10 A ($\text{Cos}\Phi = 1$)
 - A, PAR, QT 4 x 2.000 W T16/T26 with low-l. ballast 4 x 920 W (parallel p.f. corrected) TC with low-l. ballast 4 x 800 W (parallel p.f. corrected) T16/T26/TC with electr. ballast 4 x 10 A LV with transformer 4 x 10 A HIT, SDW-T, HS, HM 4 x 800 W
 - 1 relay is assigned to 1 DALI load
 - Installed on 35 mm rail

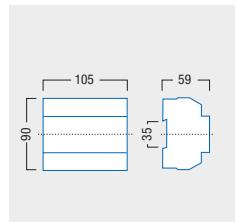
Cat. no.

EMOTION-4RUKS 4 outputs

L/W/H

DB Modules

Order no.



DALI power supply



- Power supply of a DALI line with a max. of 100 DALI loads (1 DALI load = 2mA)
- Power loss: < 4 W
- Installation: built-in/recessed into ceiling

Cat. no.

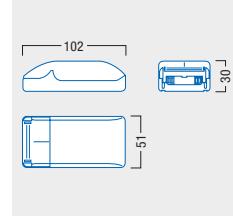
EMOTION-BV Recessed

L/W/H

102/30/51

Order no.

22 066 066



DALI power supply switch cabinet



- Power supply of a DALI line with a max. of 100 DALI loads (1 DALI load = 2mA)
- Power loss: < 4 W
- Installed on 35 mm rail

Cat. no.

EMOTION-BVS2 Switch cabinet

L/W/H

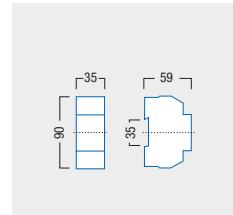
35/90/59

DB Modules

2

Order no.

22 154 276



DALI sensor (light)



- Light sensor (look out) for monitoring daylight coming into the room
- No DALI addresses occupied.
- Parameterisation via EMOTION Touch and EMOTION Touch C
- Supplied via DALI line (2 DALI loads)
- Installed on ceiling

Cat. no.

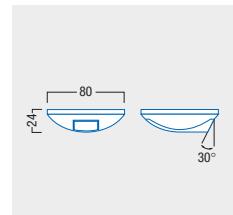
EMOTION-EYE

H/Ø

24/80

Order no.

22 154 395



DALI sensor (light, infrared, etc.)



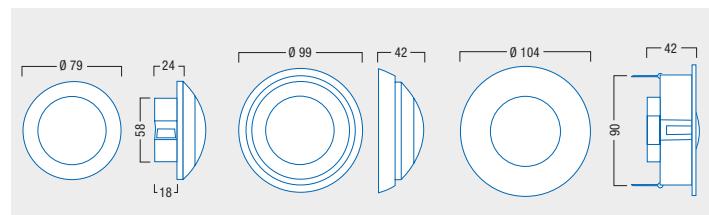
- Built-in presence detector and infrared interface
- Parameterisation via EMOTION Touch
- No DALI addresses occupied.
- Supplied via DALI line (2 DALI loads)
- Installed on ceiling

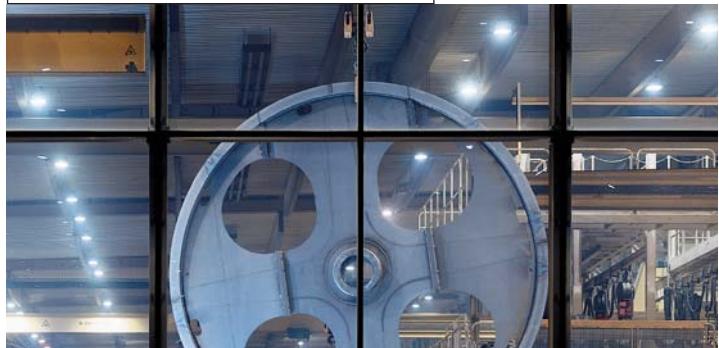
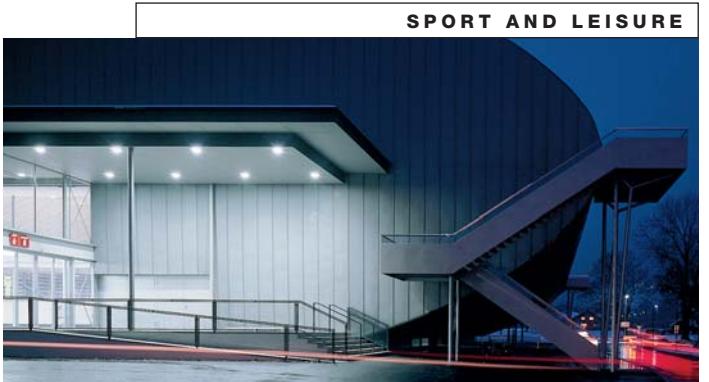
Cat. no.

EMOTION-SENS

Order no.

22 154 505



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